

REMARKS

This amendment is responsive to the Office Action mailed on February 2, 2009. Claims 1, 2, 4, 6-20, 22, 24-31, 33 and 35-41 are pending in the application and stand rejected. Claims 1, 7-10, 12-13, 15, 19, 22, 26, 30, 36, and 38 have been amended. In view of the following remarks, Applicant respectfully submits that this application is in complete condition for allowance and requests reconsideration of the application in this regard.

Claim objections

The Examiner has objected to claims 1, 7-10, 12-13, 15, 19, 22, 26,30-31, 36, and 38 for informalities. Applicant has amended that above claims as recommended by the Examiner to overcome the informalities. Therefore Applicant respectfully requests that the objections to the claims be withdrawn.

Rejections under 35 USC § 102

Claims 1-2, 4, 6-20, 22, 24-31, 33, and 35-41 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,625, 255 to Green et al (*Green*). Of these claims, claims 1, 13, 20, and 30 are the independent claims. With respect to independent claim 1, the claim recites in part “optimizing the parameters of at least one of the plurality of channels in order to improve a bit rate of the at least one of the plurality of channels in the communications system.” The Examiner contends that the optimization step is disclosed at col. 7, line 64 – col. 8, line 9 of *Green*. This portion of *Green* is a subset of the text describing the flowchart in FIG. 5. This passage of *Green* describes a process of qualifying a modem. The process described simply connects a pair of modems via a simulated reference loop and then increases the transmission rate while monitoring the bit error rate. When a threshold value of the bit error rate is reached, the modems of that type are qualified for transmission up to that data rate. *Green* fails to disclose optimizing parameters of a channel in order to improve the bit rate. *Green* simply increases the transmission rate in order to find a maximum transmission rate within an acceptable bit error rate.

In order for a reference to anticipate a claimed invention, the reference must teach each and every element in the precise arrangement set forth in the claim. *See* MPEP § 2131. If the reference fails to teach even one of the claimed features, the reference does not and cannot

anticipate the claimed invention. Based on the deficiencies of *Green* identified above, Applicant respectfully requests that the rejections of claims 1, and claims 2, 4, and 6-12 which depend therefrom, be withdrawn.

With respect to independent claim 13, this claim also similarly recites in part “an optimization module, wherein the optimization module finds the optimum characterization for the at least one channel based on at least one design criteria.” As set forth above with respect to independent claim 1, *Green* fails to disclose any optimization, but rather discloses increasing the transmission rate in order to find a maximum transmission rate within an acceptable bit error rate. Furthermore, *Green* fails to disclose finding an optimum characterization based on at least one design criteria. Therefore, *Green* fails to anticipate independent claim 13. Consequently, Applicant respectfully requests that the rejections of claim 13, and claims 14-19 which depend therefrom, be withdrawn.

With respect to independent claim 30, this claim also similarly recites in part “optimizing the at least one parameter of at least one channel in order to improve a bit rate of the at least one of the channels in the communications system.” As set forth above with respect to independent claims 1 and 13, *Green* fails to disclose any optimization, but rather discloses increasing the transmission rate in order to find a maximum transmission rate within an acceptable bit error rate. Therefore, *Green* fails to anticipate independent claim 30. Consequently, Applicant respectfully requests that the rejections of claim 30, and claims 31, 33, and 35-41 which depend therefrom, be withdrawn.

Finally, with respect to independent claim 20, claim 20 recites in part “characterizing the at least one channel using the at least one transfer function model and the impairment.” *Green* fails to disclose characterizing a channel using a transfer function and an impairment. Rather, in the passage cited by the Examiner, *Green* discloses characterizing a loop with a transfer function that models effects, such as attenuation, flat noise, and coupled noise of the reference loop on signals, such as tones, transmitted through it. Regardless of the fact that *Green's* transfer function may model effects, *Green* fails to disclose characterizing a channel using both the transfer function and an impairment. (emphasis added).

In order for a reference to anticipate a claimed invention, the reference must teach each and every element in the precise arrangement set forth in the claim. See MPEP § 2131. If the reference fails to teach even one of the claimed features, the reference does not and cannot

anticipate the claimed invention. Based on the deficiencies of *Green* identified above, Applicant respectfully requests that the rejections of claims 20, and claims 22, 24-29 which depend therefrom, be withdrawn.

Conclusion

Applicant has made a bona fide effort to respond to each and every requirement set forth in the Office Action. In view of the foregoing amendments to the claims and remarks given herein, Applicant respectfully believes this case is in condition for allowance and respectfully requests allowance of the pending claims. If the Examiner believes any detailed issue requires further discussion, the Examiner is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. The Examiner's prompt attention to this matter is appreciated.

Applicant is of the opinion that no additional fee is due as a result of this Amendment. Payment of all charges due for this filing is made on the attached Electronic Fee Sheet. If any additional charges or credits are necessary to complete this communication, please apply them to Deposit Account No. 23-3000.

Respectfully submitted,

May 4, 2009

Date

/Charles R. Figer, Jr./

Charles R. Figer, Jr.

Reg. No. 62,518

WOOD, HERRON & EVANS, L.L.P.

2700 Carew Tower

441 Vine Street

Cincinnati, Ohio 45202

Telephone: (513) 241-2324

Facsimile: (513) 241-6234